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WHAT IS CLAIMED IS:

1. A color electrophotographic apparatus which reproduces an image by utilization of a plurality of color toners and by expressing halftone of each color through use of  
5 halftone spots formed from a plurality of dots, said apparatus comprising:

a halftone processing section which is provided with halftone data for respective colors and which reproduces image reproduction data by reference to a conversion table defining  
10 a correspondence between the halftone data and image reproduction data; and

an image reproduction engine which is provided with a drive signal corresponding to the image reproduction data to thereby cause the toners to adhere to a development region whose  
15 area and location correspond to the image reproduction data, within the dots,

wherein said halftone processing section prepares the image reproduction data to be used for changing an angle of at least one color screen of a plurality of color screens to  
20 substantially an angle related to an irrational tangent.

2. A color electrophotographic apparatus according to claim 1, wherein said image reproduction engine radiates a beam to the development region to thereby causes the toners to adhere  
25 to the development region, and

the image reproduction data comprise data pertaining to a position and an area to be exposed within the dot in a scanning direction of the beam.

3. A color electrophotographic apparatus according to claim 1, wherein the conversion table comprises

a plurality of  $\gamma$  tables each defining the correspondence between the halftone data and the image reproduction data; and

5 a pattern matrix having reference data, which reference data show the  $\gamma$  table to be referred to in response to the matrix having the plurality of dots.

4. A color electrophotographic apparatus according to claim 3, wherein a partial overlap exists in the reference data provided within the pattern matrix, and a single  $\gamma$  table is referred to by the plurality of dots within the pattern matrix.

5. A color electrophotographic apparatus which reproduces an image by utilization of a plurality of color toners and by expressing halftone of each color through use of halftone spots formed from a plurality of dots, said apparatus comprising:

a halftone processing section which is provided with halftone data of respective colors and which reproduces the image reproduction data corresponding to the dots on the basis of the halftone data by reference to a conversion table defining a correspondence between the halftone data and image reproduction data; and

25 an image reproduction engine which is provided with a drive signal corresponding to the image reproduction data to thereby cause the toners to adhere to a development region whose area and location correspond to the image reproduction data,

within the dots,

wherein said halftone processing section prepares the image reproduction data to be used for making distances among centroids of the halftone spots of the plurality of colors  
5 substantially equal.

6. A color electrophotographic apparatus according to claim 5, wherein said image reproduction engine radiates a beam to the development region to thereby causes the toners to adhere  
10 to the development region, and

the image reproduction data comprise data pertaining to a position and an area to be exposed within the dot in a scanning direction of the beam.

15 7. A color electrophotographic apparatus according to claim 5, wherein the conversion table comprises

a plurality of  $\gamma$  tables each defining the correspondence between the halftone data and the image reproduction data; and  
a pattern matrix having reference data, which reference  
20 data show the  $\gamma$  table to be referred to in response to the matrix having the plurality of dots.

8. A color electrophotographic apparatus according to claim 7, wherein a partial overlap exists in the reference data  
25 provided within the pattern matrix, and a single  $\gamma$  table is referred to by the plurality of dots within the pattern matrix.

9. A method of processing an image of color

electrophotography by utilization of a plurality of color toners and by expressing halftone of each color through use of halftone spots formed from a plurality of dots, said method comprising:

5        a halftone processing process, in which halftone data are provided for respective colors and the image reproduction data corresponding to the dots are produced on the basis of the halftone data by reference to a conversion table defining the correspondence between the halftone data and image reproduction  
10    data; and

      an image reproduction process, in which a drive signal corresponding to the image reproduction data is provided and the toners are caused to adhere to a development region whose area and location correspond to the image reproduction data,  
15    within the dots,

      wherein, in the halftone processing process, there are produced the image reproduction data to be used for changing an angle of at least one color screen of a plurality of color screens to substantially an angle related to an irrational  
20    tangent.

10.    A method of processing an image of color electrophotography by utilization of a plurality of color toners and by expressing halftone of each color through use of  
25    halftone spots formed from a plurality of dots, said method comprising:

      a halftone processing process, in which halftone data of respective colors are provided and the image reproduction data

corresponding to the dots are reproduced on the basis of the halftone data by reference to a conversion table defining the correspondence between the halftone data and image reproduction data; and

5        an image reproduction process, in which a drive signal corresponding to the image reproduction data is provided and the toners are caused to adhere to a development region whose area and location correspond to the image reproduction data, within the dots,

10       wherein, in the halftone processing process, there are prepared the image reproduction data to be used for making distances among centroids of the halftone spots of the plurality of colors substantially equal.

15       11. A recording medium having recorded thereon an image processing program used for causing a computer to perform color electrophotographic image processing procedures for reproducing an image by utilization of a plurality of color toners and by expressing halftone of each color through use of  
20 halftone spots formed from a plurality of dots, said image processing procedures comprising:

      a halftone processing procedure, in which halftone data are provided for respective colors and the image reproduction data corresponding to the dots are produced on the basis of the  
25 halftone data by reference to a conversion table defining the correspondence between the halftone data and image reproduction data,

      wherein the image reproduction data comprise data

pertaining to a position and area to be exposed within the dot in the scanning direction of the beam, and the halftone processing procedures produces the image reproduction data to be used for changing an angle of at least one color screen of a plurality of color screens to substantially an angle related to an irrational tangent.

12. A recording medium having recorded thereon an image processing program used for causing a computer to perform color electrophotographic image processing procedures for reproducing an image by utilization of a plurality of color toners and by expressing halftone of each color through use of halftone spots formed from a plurality of dots, said image processing procedures comprising:

15 halftone processing procedures, in which halftone data of respective colors are provided and the image reproduction data corresponding to the dots are reproduced on the basis of the halftone data by reference to a conversion table defining the correspondence between the halftone data and image reproduction data,

20 wherein the image reproduction data comprise data pertaining to a position and area to be exposed within the dot in a scanning direction of the beam, and the halftone processing procedures produces the image reproduction data to be used for making distances among the centroids of the halftone spots of the plurality of colors substantially equal.